AMENDMENTS TO THE DRAWING FIGURES:

The attached drawing sheets include changes to Figs. 4 and 5. These sheets, which include Figs. 4 and 5, replace the original sheets including Figs. 4 and 5. The changes to Fig. 4 are in the top column, wherein "Work Ex. 6," "Work Ex. 7," and "Work Ex. 8" have been respectively changed to "Comp. Ex. 2," "Comp. Ex. 3," and "Comp Ex. 4." The changes to Fig. 5 are in the top column, wherein "Work Ex. 9," "Work Ex. 10," "Work Ex. 11," and "Work Ex. 13" have been respectively changed to "Comp. Ex. 5," "Comp. Ex. 6," "Comp. Ex. 7" and "Comp Ex. 8."

Attachments: Two (2) Replacement Sheets

REMARKS

By way of the present response, claim 8 has been amended in order to better define that which Applicants regard as the invention. Claims 8 and 10 currently are pending.

With reference now to the Official Action and particularly page 2 thereof, claims 8 and 10 were rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. Insofar as that the Office may consider this rejection to apply to amended claim 8, Applicants respectfully traverse.

Claim 8 has been clarified to recite that each of the glass pipe and the glass rod has a constant feed rate, and the feed rate of the glass pipe is set faster than that of the glass rod. Support for this amendment is found, for example, in Figures 4 and 5. While Figures 4 and 5 do not explicitly show the feed rates of the glass pipe and the glass rod, they show a magnitude relationship between the feed rate of the glass pipe and that of the glass rod. As seen in Figures 4 and 5, the magnitude relationship between the feed rate of the glass pipe and that of the glass rod refers to a magnitude relationship between the ratio of the cross section area of the pre-unified glass pipe to that of the pre-unified glass rod and the ratio of the cross section area of the unified glass pipe to that of the unified glass rod:

(cross section area of the pre-unified glass rod) / (cross section area of the pre-unified glass pipe) $= (\pi * d^2/4)/(\pi * D0^2/4 - \pi * d0^2/4) = d2/D0^2 - d0^2$ ...(1)

(cross section area of the unified glass rod) / (cross section area of the unified glass pipe) $= (\pi * d1^2/4)/(\pi * D1^2/4 - \pi * d1^2/4) = d1^2/D1^2 - d1^2$ ...(2)

where D0, d0, d, D1 and d1 are defined in Figure 2, and π denotes the circle ratio.

As the Examiner can appreciate, when the feed rate of the glass pipe is the same as that of the glass rod, equations (1) and (2) will have the same value. When the feed rate of the glass pipe is faster than that of the glass rod, the equation (1) has a value larger than equation (2). This is because by setting the feed rate of the glass pipe faster than that of the glass rod, the cross section area of the unified glass pipe becomes relatively larger than that of the unified glass rod.

In contrast, when the feed rate of the glass rod is faster than that of the glass pipe, the equation (1) has a value smaller than that of the equation (2). This is because by setting the feed rate of the glass rod faster than that of the glass pipe, the cross section area of the unified glass rod becomes relatively larger than that of the unified glass pipe.

For example, in Figure 16, the feed rate of the glass rod V_R is faster than the feed rate V_P of the glass pipe. According to the example shown in Figure 16, the equation (1) has a value of 0.0400 and the equation (2) has a value of 0.0689, and thus the value obtained from the equation (1) is smaller than that from the equation (2).

Moreover, in each comparison example of Figure 16, the feed rate of the glass pipe is the same as that of the glass rod. For example, in Comp. Ex 1, the equation (1) has a value of 0.0400 and the equation (2) has a value of 0.0384, and the value obtained from the equation (1) is substantially the same a that from the equation (2) (a difference of 0.002).

On the other hand, in each of Examples 1-5, 8, 12 and 14 of Figures 4 and 5, the equation (1) has a value larger that the equation (2) (see the table, below). Therefore, in the Examples, the feed rate of the glass pipe is faster then that of the glass rod, and thus both the feed rates are not identical.

Table

	Ex. 1	Ex. 2	Ex. 3	Ex. 4	Ex. 5	Ex. 8	Ex. 12	Ex. 14
Value of Eq. (1)	0.0978	0.0912	0.0912	0.0912	0.0912	0.0825	0.114	0.0966
Value of Eq. (2)	0.0885	0.0836	0.0836	0.0833	0.0833	0.0728	0.0998	0.0882
Difference between Eq. (1) & Eq. (2)	0.009	0.008	0.008	0.008	0.008	0.007	0.012	0.008

Note that in each of Examples 6, 7, 9-11 and 13 of Figures 4 and 5, the feed rate of the glass pipe is substantially the same as that of the glass rod. Therefore, Examples 6-11 and 13 have been amended to Comparison Examples 2-8 (shown as "Comp. Ex." 2 to 8), respectively (see the attached replacement drawings). The description from page 25, line 19 to page 26, line 4, and from page 26, line 27 to page 27, line 1 of the specification has been amended accordingly. Additionally, lines 4-7 of page 28 has been amended to explicitly recite that the second embodiment is different from the first embodiment in that the feed rate of the glass rod 2 is set faster than the feed rate of the glass pipe 1, which is supported by Applicants' disclosure, as pointed out above, and described in the specification, for example, at lines 24-25 of page 28.

Based on the foregoing, Figures 4 and 5 show that the feed rate of the glass pipe is set faster than that of the glass rod. Hence, it is respectfully submitted that the present amendment to claim 8 is supported by Figures 4 and 5 and the specification.

In the Action, the Examiner asserts that if the feed speed varies than the L1 and L2 values would also change, and thus result in non-constant L1/(L1 + L2) values. In other words, if the feed speed is kept constant, the L1/(L1 + L2) value is also a constant. However, in each of the Examples of Figures 4 and 5, the L1/(L1 + L2) value is constant. Hence, the feed rates of the glass pipe and the glass rod are constant.

For at least these reasons, it is believed the rejection based on Section 112, first paragraph, has been overcome. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Page 3 of the Office Action also includes a rejection of claims 8 and 10 under 35 U.S.C. §103(a), as allegedly being unpatentable over the Berkey (U.S. Patent No. 5,917,109) in view of Baumgart et al. (U.S. Patent No. 4,820,322) and Dobbins (U.S. Patent No. 6,301,934). This rejection is respectfully traversed in that the combination proposed by the Examiner neither discloses nor suggests that which is presently set forth by Applicants' claimed invention.

A feature of the presently claimed invention resides in that each of the glass pipe and the glass rod has a constant feed rate, that the feed rate of the glass pipe is set faster than that of the glass rod, and the level of pressure reduction within the pipe is set such that it has a value in the predetermined range of values. According to the present invention, core eccentricity in the optical fiber perform can be avoided and the formation of bubbles can be prevented.

The Dobbins patent describes a method of making an optical fiber having a core diameter that varies axially by unifying the rod and the tube while varying the velocity of each downfeed. The present invention is distinguished from Dobbins in that each of the glass pipe and the glass rod a constant feed rate. Hence, Dobbins fails to teach or suggest that the feed rate of the tube is faster than that of the rod and that each feed rate is kept constant.

In addition, the object of the Dobbins patent is to decrease dispersion by varying the core diameter axially and to maintain the shape of the optical soliton pulse (see col. 1, lines 13-21). As those of ordinary skill in the art would know, dispersion is an optical property and is not related to core eccentricity of the optical fiber perform. The core eccentricity of the present invention, by contrast, refers to a shift of the center of the core to the center of the outer diameter of the optical fiber preform (optical fiber), which is a geometrical property. Thus, it is respectfully submitted that the Dobbins patent is directed to a distinctly different

objective form the present invention, and therefore does not teach or suggest the claimed subject matter.

The Berkey and Baumgart et al. patents likewise fail to disclose or even remotely suggest that the glass pipe and the glass rod has a constant feed rate and that the feed rate of the glass pipe is set faster than that of the glass rod, as recited in amended independent claim 8. Accordingly, it is respectfully submitted that Applicants' claimed invention as set forth in independent claim 8, as well as independent claim 10, wherein each of the glass pipe and the glass rod has a constant feed rate, and the feed rate of the glass pipe is set faster than that of the glass rod, clearly distinguishes over the combination proposed by the Examiner. As such, the rejection under Section 103 should be withdrawn.

All rejections raised in the Office Action having been addressed, the present application is now believed to be in condition for allowance. Prompt notification of the same is earnestly sought.

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